telyHD™ Pro

Quick Start Guide

This guide explains how to use and configure telyHD Pro.
More information can be found at tely.com

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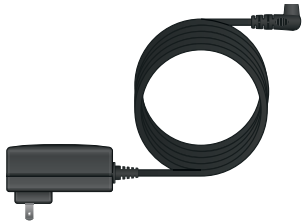
What's in the box

telyHD Pro appliance

Remote control
(battery included)



Power adapter

HDMI cable

telyHD
Please keep this card in a safe place!
Welcome to telyHD Pro
To activate your telyHD Pro enter the code below when prompted by the setup wizard.
Activation Code
4J80KL
For more information on telyHD Pro go to www.tely.com

Activation Card

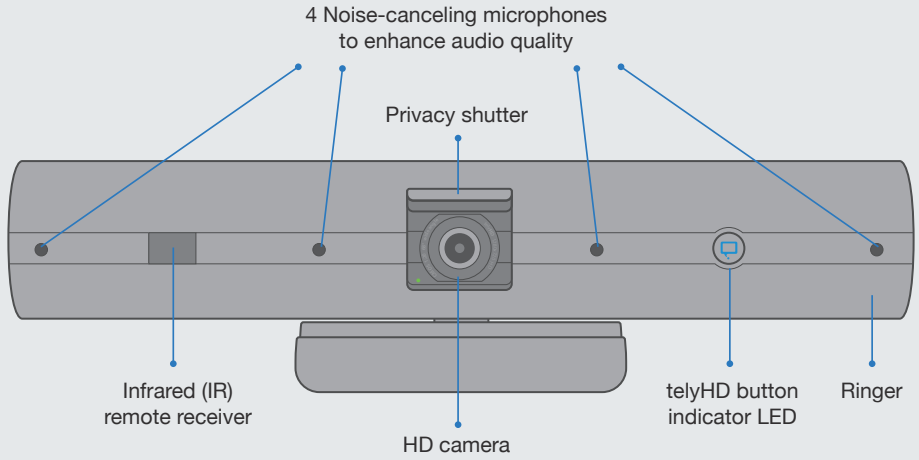
Technical Support Information

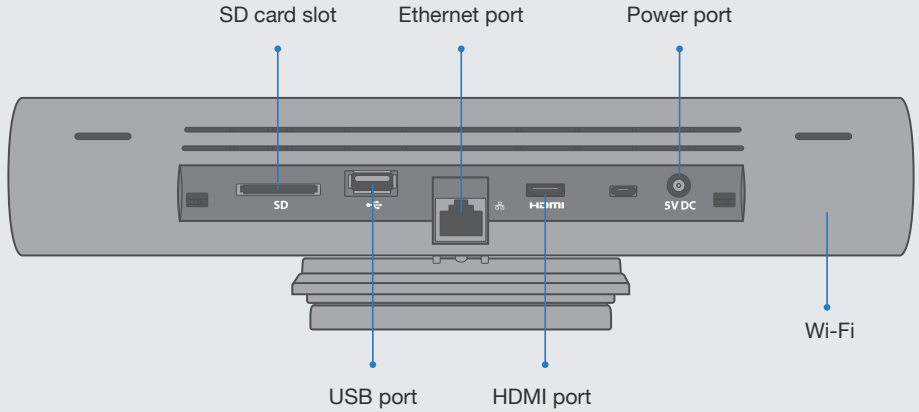
For helpful tips and how-to videos, visit our web site
tely.com/support

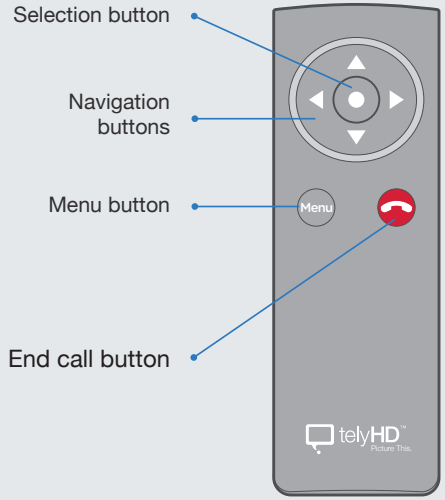
Technical Support – live agent
You can also reach us directly
Monday through Friday, 9am to 5pm Pacific time.

Email	support@tely.com
Toll free	1 (888) 787-TELY (8359)
Direct	1 (650) 318-6866
Chat	tely.com

telyHD Pro Overview







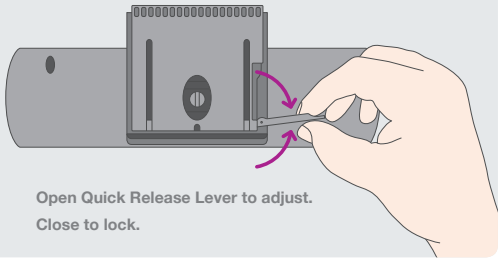
Basic remote functions
The following summarizes the key remote functions.

Contacts Screen Navigation	Button actions
Move through the cards	◀ ▶
Turn over a card for more information	▲
See or hide menu	Menu
Place calls or select the highlighted option	●
Menu Navigation	
See or hide menu	Menu
Move through the menu	◀ ▶
Select the highlighted option from the menu	●
End call/exit menu	

Installation

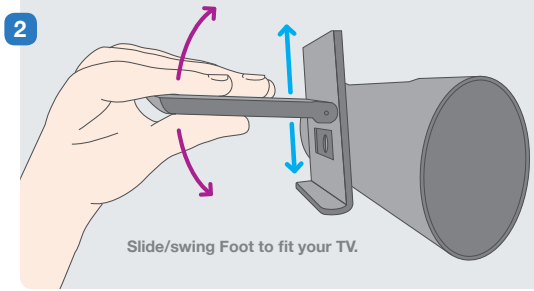
Adjusting the TV Clamp

1



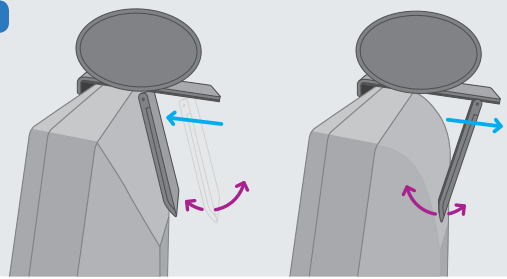
Open Quick Release Lever to adjust.
Close to lock.

2



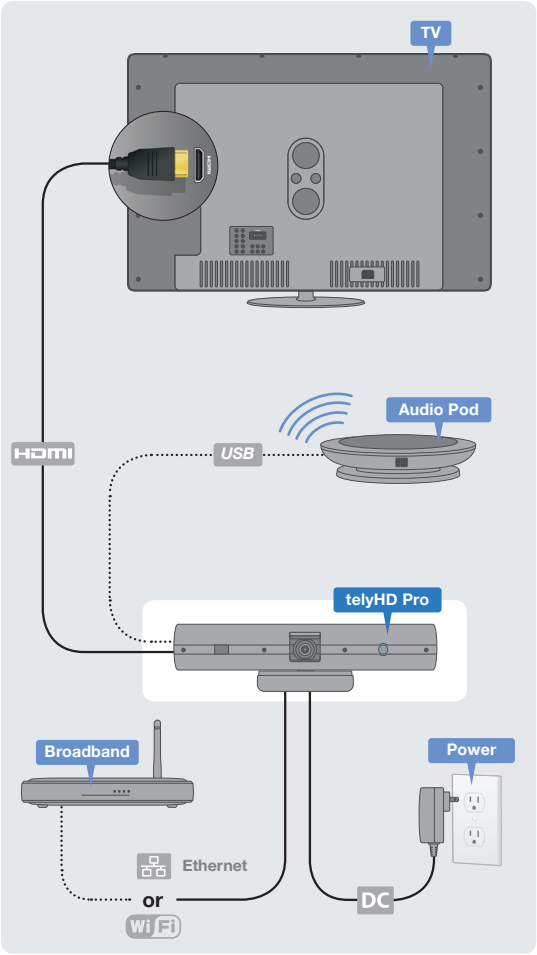
Slide/swing Foot to fit your TV.

3



⚠ *Always open the Quick Release Lever before sliding or changing the angle of the Foot.*

Plugging in your telyHD Pro



Getting Started

Initial Configuration

After the first boot up, please follow the onscreen wizard to complete the initial configuration.

Software Activation

Press the ▲▼ UP/Down Arrow buttons on the remote to change the input values

Press the ◀▶ Left/Right Arrow buttons to move between fields

Additional license keys can be applied after the unit is fully configured.

- Press the Menu button on the remote and go to Settings > System > Activations and enter your 6-digit activation code included in the telyHD Pro package.
- Reboot telyHD Pro Appliance.

Main Screen

SIP Calling with telyHD Pro

SIP (Session Initiation Protocol) Settings

Press the Menu button on the remote and go to Settings > System > SIP Settings

Leverage existing SIP infrastructure

The following are fields in the SIP Settings Menu. Some of these fields may not be required, depending on your specific SIP service. For questions, please contact your network administrator.

Enable BFCP Data Sharing

- Enable or disable BFCP

SIP Domain

- Enter domain for the SIP service. This is also known as “realm.”

Username

- Enter username for the SIP server.

Transport

- Select a transport type. If a certain transport type is selected, it will be used exclusively going forward. The transport type can be TCP, UDP, or TLS.

Enable Proxy

- Enable or disable (default) proxy server.

Enable Registration

- Register to a SIP registrar server and enter optional authentication username or password.

Ensure that the following firewall ports are open:

SIP	5060-5061	TCP

For full list of necessary ports please refer to page 10.

Making a SIP Call

Note: Select the SIP Call card from the main screen.

Supported connections

- SIP account
- IP address

Use one of the following options to place a SIP call.

Dial

- Enter the SIP address (user@company.com) or IP address (10.10.10.10.) of the endpoint you wish to call.
- An address can be added to the Contacts list by "Saving" the entry.

Recents

- Provides a list of all SIP calls, called or received.

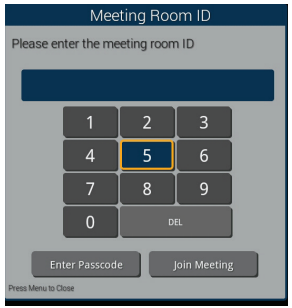
Contacts

- Select a contact and place a SIP call to the address specified.
- Search against all SIP contacts using the search box.
- Press the right arrow to edit a selected entry.

Blue Jeans Meetings with telyHD Pro

Select the Blue Jeans card from the main screen.

- Instantly connect to a meeting room by selecting a saved Contact or recently called meeting room.
- Add a new meeting room to the Directory by selecting “Add…” and selecting “Blue Jeans Meeting.” Next, enter the Meeting ID and Passcode (optional) and select Save.



Enter the meeting ID and passcode (optional) to connect

Requirements

Ensure that the following firewall ports are open:

Blue Jeans	199.48.152.0/22
Blue Jeans	31.171.208.0/21
Blue Jeans	103.20.59.0/24
Blue Jeans	8.10.12.0/24

Note: *Blue Jeans has several POPs distributed globally. The call will be automatically redirected to the closest POP to the end point or media egress point. Audio/video traffic will likely be routed to any of above IP range based on geographic location. Hence it’s important that firewall ports are opened against the entire IP range.*

Ensure that the following TCP and UDP ports are open:

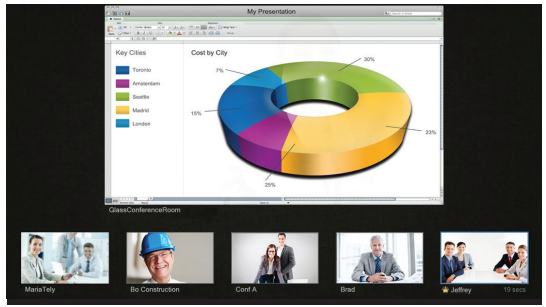
TCP Port	5060 - SIP Signaling
TCP Port	5061 - SIPS (TLS) Signaling
UDP Ports	5000-5999 - RTP Media
TCP Port	443 - Blue Jeans API

For full list of necessary ports please refer to page 10.

Using telyCloud with telyHD Pro

telyCloud provides conferencing for up to 6 participants and integrated data sharing for a complete visual collaboration experience without the need for any on premise equipment

telyCloud continuous presence conference



telyCloud continuous presence conference with data sharing active

Note: *telyCloud uses a Skype address book. To access your contacts, log into a Skype account using the Sign In card on the main screen. If you do not have a Skype account available, please sign up for one using the Sign Up card on the main screen.*

Making a telyCloud call

- Select the telyCloud card from the Home screen.

Starting a telyCloud Group Call

Call multiple user at once using telyCloud

- Select the telyCloud card from the Contacts screen and choose which participants to call.
  - Use the arrows and Select button on your remote control to select Contacts to call.
  - To delete participants from the list of selected, use the arrows to highlight the participant you want to delete and press Select.
- If you frequently call this group of users, you can save it for future calling by adding it as a Contact in the Directory.

Add/remove a participant in a multi-party call

- Anyone can invite a participant to an existing call, but only a Moderator (indicated by a crown symbol) must approve or decline the invitation.
- Only the Moderator can remove people from the call using the in-call menu.

GOOD TO KNOW

- *For best quality, all parties should have at least 1Mbps of upstream and downstream bandwidth*
- *A telyHD Pro is required to participate with video in a multi-party video call; non telyHD Pro participants can join via Skype in audio-only mode*
- *An audio-only participant is represented by an avatar card that pulses when that party is speaking*
- *Standard telephone participants can join a multi-party call, as long as the inviting participant has Skype Credit and has the party's phone number saved as a Skype Contact*
- *If the Moderator accepts an incoming call while in a multi-party call, the multi-party call will end*

Using telyShare with telyHD Pro

telyShare can be used to share content from your computer with participants during a call or for sharing locally.

telyShare can be used with all call types.

Requirements

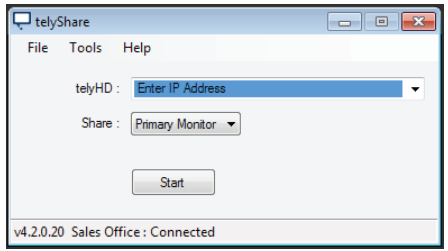
- PC with Windows XP and above or MAC with OS X v10.7 or above.
- telyShare software (available from www.tely.com/resources/#downloads)
- Network connectivity between your computer and the telyHD Pro.

Installation

- After downloading telyShare to your computer, install and follow the on-screen Wizard.
- If prompted, allow access to your network. Similarly, if using 3rd party firewall software, allow access to telyShare.
- After telyShare is installed, you can check for software updates under the Tools menu item.

Sharing your desktop

- Launch telyShare application or if telyShare is already running, you can find it in the system tray.
- Select your telyHD Pro from the list. If you do not see your telyHD Pro in the list, you can manually specify the IP address of your telyHD Pro.
- Click Start to share your desktop.



telyShare for Windows user interface

- You will now see your computer desktop on the telyHD Pro display. If you are in an active call, the experience will vary by call type.
  - SIP and Blue Jeans Network calls – The remote party will see the content shared via telyShare application instead of the video content from your camera. The local user can use Screen Layout Menu option to toggle between remove video and content sharing.
  - telyCloud calls – Shared data and the video of each participant will be displayed simultaneously. Use the Screen Layout menu option to change the screen layout.
  - Skype calls - The remote party will see the content shared via the telyShare application instead of the video content from your camera. The remote party will have to restart their video camera in the Skype user interface once the content sharing has been ended.

Using Skype with telyHD Pro

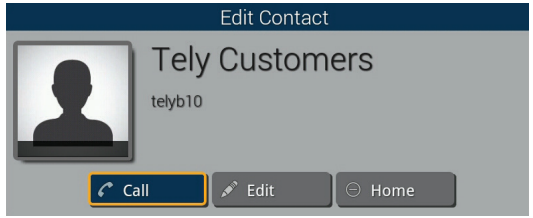
The telyHD Pro can be used to call any Skype user on any Skype supported device (PC, MAC, Smartphone, tablet, TV, etc.

Logging into Skype

- Log into your Skype account using the "Add..." card in the Skype Menu
- If you do not have a Skype account, you can create one using the "Create New Skype Account" button.

Calling a contact

- Use the buttons on your telyHD remote to browse your contacts (from the Home screen or the Directory).
- Select an online contact and press the select button to call.



Call Skype contacts directly from the telyHD Pro

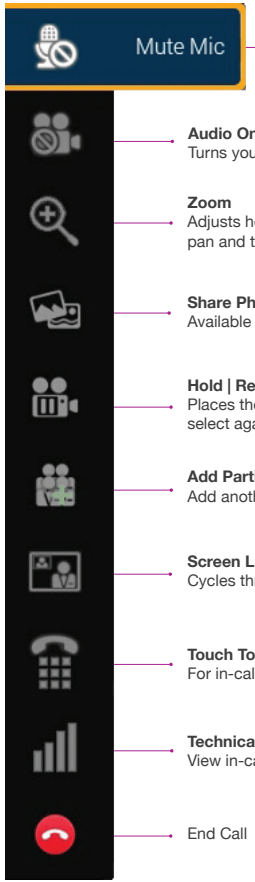
Adding a contact

- Press the Menu button on the remote and navigate to "Directory".
- Select the "Add..." card.
- You may also search by name, and/or email address.
- Once you find the person, invite them to be added to your contacts.

The In-Call Menu

Select the Menu button on your telyHD remote to view the Menu Bar. Use the Up/Down arrows on your telyHD remote to view the different menu options.

The In-Call Menu



Mute Mic | Unmute Mic
Turns your microphone on and off

Audio Only | Resume Video
Turns your camera on and off

Zoom
Adjusts how you appear on camera; includes pan and tilt when not fully zoomed out

Share Photos
Available only between two telyHDs

Hold | Resume
Places the call on hold (video plus audio); select again to resume the call

Add Participant
Add another endpoint to the call (telyCloud only)

Screen Layout
Cycles through the viewing options

Touch Tone Pad
For in-call use

Technical Details
View in-call statistics

End Call

Additional Features Available with telyHD Pro

Support for External USB Audio

telyHD Audio Pod

For more information on External Audio For Conference Rooms go to **www.tely.com**

The telyHD Audio Pod is a highly recommended accessory for telyHD Pro appliances intended for use in mid- to large-sized meeting rooms. Audio quality is improved when the microphone and speaker assembly is placed in closer proximity to meeting participants. Connects to the USB port on telyHD Pro appliances. 15' USB extension cable is included.

Support for USB Keyboard and Mouse

telyHD Pro supports standard USB keyboards and mice for a more convenient way of data entry and for web browsing. If you connect more than 1 (one) USB device to the telyHD Pro, you will need a USB hub.

Navigating with a keyboard:

- 'Alt' key is used to access the Menu.
- Arrow keys are used for navigation.
- 'Enter' key is used for selecting an item.

Recommended USB devices:

- Wireless USB Keyboard and Touchpad: Logitech Wireless Touch Keyboard K400
- USB Hub: Belkin USB 2.0 4-Port Ultra-Mini Hub

SmartRemote

In addition to the included remote control device, the SmartRemote App makes it easy to wirelessly control your telyHD Pro from your Android or iOS smartphone or tablet. Scroll through contacts, enter text with the on-screen keyboard or easily navigate the the web using the telyHD Pro's built-in web browser.

Available from the Apple App Store and Google play.

iOS | Android

Available on the App Store

GET IT ON Google play

Browser

Browse the web on your conference room TV. Use the SmartRemote App to navigate with its on-screen touchpad and complete online forms with its on-screen keyboard.

To access the browser:

- Press the Menu key on the remote.
- Go to Browser.

Safety

Read and follow these instructions to use your telyHD Pro safely.

- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not install near any heat source such as a radiator, fireplace, stove, or other apparatus (including amplifiers) that produce excessive heat.
- Protect the power cord from being walked on or pinched, particularly at plugs and at the point where it exits from the apparatus.
- Only use attachments/accessories specified by Tely Labs. Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, or the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Do not place open flame sources, such as lighted candles, on or near the apparatus.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain, liquid, moisture, excessive heat, prolonged direct sunlight, or open flame.

- The power cord included with this apparatus is for indoor use only.
- Do not move the apparatus if another device such as a TV, computer, or other electronic device is connected to it.
- Do not expose the apparatus to dripping or splashing.
- Information such as model number, electrical rating, and other classifications is located on the bottom of the apparatus.

Regulatory Compliance Information

FCC Compliance Statement
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

You can determine whether this equipment is causing interference by turning it off. If the interference stops, it was probably caused by the equipment or a peripheral device.

If your equipment does cause interference to radio or television reception, try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the equipment to one side or the other of the television or radio.
- Move the equipment farther away from the television or radio.
- Plug the equipment into an outlet that is on a different circuit from the television or radio. (That is, make certain the equipment and the television or radio are on circuits controlled by different circuit breakers or fuses.)

If necessary, consult Tely Labs or an experienced radio/television technician for additional suggestions. Changes or modifications not expressly approved by Tely Labs, Inc. could void the manufacturer's warranty. This product has demonstrated electromagnetic interference compliance under conditions that included the use of compliant peripheral devices and shielded cables between system components. It is important that you use compliant peripheral devices and shielded cables (including Ethernet network cables) between system components to reduce the possibility of causing interference to radios, television sets, and other electronic devices.

Responsible party (contact for FCC matters only):

Tely Labs, Inc.
Attn: FCC Liaison
425 Broadway Street
Redwood City, CA 94063 USA

Wireless Radio Use
This device is restricted to indoor use and operates on the 2.4Gz frequency band when used in wireless mode.

Exposure to Radiofrequency Energy
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transceiver must not be co-located or operating in conjunction with any other antenna or transmitter. In accordance with FCC requirements of human exposure to radiofrequency fields, the radiating element shall be installed such that a minimum separation distance of 20cm (8in) is maintained from all persons.

Industry Canada (IC) Statement
This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Australia/New Zealand - C-Tick
This product was tested to demonstrate compliance with AS/NZS 4268:2008 Rules and regulations. The methods of testing were in accordance with the most current and accurate measurement standards possible. All necessary steps have been taken in order to assure that all production units will continue to comply with AS/NZS 4267:2008's requirements

Japan - MIC
This product has been tested and is compliant with the Radio Law (Law No. 113, 1950) and Amendments

Korea – Certification of Broadcasting and Communication Equipment
This product has been certified under Clause 2, Article 58-2 of the Radio Wave Act.

European Union - CE
This product has been assessed and found to comply against the following Standards:

EN 300 328 V1.7.1 (2006-10),
EN 301 489-1 V1.9.2 (2011-09), EN 301 489-17 V2.1.1 (2009-05)

The aforementioned standard(s) is/are one of several standards that are required under the EMC Directive(s);
Directive 2004/108/EC Electromagnetic Compatibility (as amended)
Additional standard(s) may be required to fulfill the EMC Directive(s).

Disposal and Recycling Information
All telyHD Pro packaging materials may be recycled. When telyHD Pro is no longer needed, its plastic housing may be recycled. Please check with local resources for information on how to properly dispose of the inner components of telyHD Pro plus the remote control, which includes a lithium battery. telyHD Pro is 100% RoHS compliant, and therefore free of the following hazardous materials: lead (Pb), mercury (Hg), cadmium (Cd), hexavalent chromium (CrVI), polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE).

telyHD Pro License Agreement
To read the full agreement, please go to www.tely.com/legal

Part Number: 05-QRHDP-01-44

System Requirements

IP Ports and Protocols Used by the telyHD Pro

The purpose of the table on the far right is to explain the IP ports and protocols used by telyHD Pro during videoconferences, updates, collaboration and other tasks.

This is essential information if there are endpoints that are protected by a firewall. It lists the port and the protocol used for various telyHD Pro functions.

Notes

General Information

Name of telyHD Pro

IP Address

SIP Address

telyCloud/Skype

Login Name

Password

SIP Configuration

SIP Domain:

SIP Username:

Transport Protocol:

Proxy Server:

Registrar Server

Authentication Username:

Authentication Password:

	Outbound Destination Ports	
Licensing	80/443	TCP
SDP Exchanger	80/3490	TCP
STUN/TURN	3478-3479	TCP/UDP
NTP	123	UDP
NAT Checker	3478-3479	UDP
Skype	80/443	TCP
Skype	1024-65535	TCP/UDP
Updater	80	TCP
Diagnostic Report	443	TCP
BlueJeans API	443	TCP
Network Check	80	TCP
Takeover Message	80	TCP
General DNS lookups	53	UDP
SIP signaling	5060-5061	TCP
SIP Media (RTP/RTCP)	40000-42000	UDP
BlueJeans Media	5000-5999	UDP
telyCloud Media	49152-65535	UDP

	Inbound Listening Ports	
SIP	5060-5061	TCP
Tely Device API	8443	TCP
TelyShare	8081	TCP
REST API	8082	TCP
BFCP	5070	UDP

	IP whitelist
TelyCloud	184.169.156.61
TelyCloud	184.169.165.242
TelyCloud	54.241.130.221
Blue Jeans	199.48.152.0/22
Blue Jeans	31.171.208.0/21
Blue Jeans	103.20.59.0/24
Blue Jeans	8.10.12.0/24

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